PREPARATION
OF CHILDREN
FOR THE INTRODUCTION
OF A CHILD
WITH AN INTELLECTUAL DISABILITY
TO THE CLASSROOM

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ABSTRACT

Past research has shown the benefits of giving one or more lessons to children without a disability about friendship and disability, in anticipation of the integration of a child with a disability to their class. The information in the lesson can increase acceptance and positive interactions between this child and children without an intellectual disability. This investigation involved two New Zealand primary school classes, each participating in a three hour disability awareness program with the aim of increasing acceptance and positive social interactions between children with and without intellectual disabilities. The participants completed an acceptance scale and one class was videoed during free time to determine the social interaction level with a participant who was intellectually disabled. Data was gathered in baseline, two weeks after the lesson and two months later. The results showed that a preparatory lesson can increase acceptance and social interactions providing there is contact with a child who is intellectually disabled. Implications for mainstreaming practices in New Zealand are discussed.

CHAPTER I

INTRODUCTION

I. MAINSTREAMING

Mainstreaming is the integration of students with disabilities into the regular education system. As Schifani, Anderson and Odle (1980) state, mainstreaming occurs when children with disabilities are educated in regular classrooms alongside children without disabilities whenever this is the most suitable placement for all the children. In a school that has a mainstreaming program you will find children with sensory impairments such as deafness, children in wheel chairs and children with an intellectual disability learning, buying their lunch and playing in the same classrooms, tuck-shops and playgrounds as children without a disability. In other words, mainstreaming is having children with and without disabilities participating in the same classrooms and school facilities.

The past view of educating children with intellectual disabilities is referred to as the two-box system, or segregated and regular education for students who are disabled and children without disabilities respectively. Nowadays though, this view has changed to the side-by-side version of education, where all students are educated beside one another.

> Today there is a general shift from believing that a child with an intellectual handicap needs to be segregated for his own and society's benefit (and possibly also protection) to the integration of these children into the educational groups so that they will learn to live with,

> work with, accept and be accepted by, the normal community (Hall, 1987, p. 33).

The separate system of education, or segregated classrooms, is currently out of vogue and mainstreaming is the dominant trend. Kaufman, Gottlieb, Agard and Kukic (1975) suggested that the integration or mainstreaming of children with and without disabilities can occur at three different levels: temporal, instructional and social. Although this definition is twenty years old it is still referred to in recent literature.

Temporal integration refers to the length of time a child with a disability spends in a regular classroom. How much time is spent receiving instruction from the teacher is instructional integration and social integration is the amount of time a child with a disability spends interacting with children who do not have disabilities.

A child is said to be in the mainstream if temporally integrated. However, mere physical placement of child with a disabilities into a classroom does not equate to successful integration. Kaufman et al (1975) state that temporal integration is not satisfactory mainstreaming. The child who is mainstreamed can be inside the walls of the school but not included by the other children.[1] Physical integration does not equal inclusion. Clearly, as Hilton and Liberty (1992) demonstrated in their research "merely placing students with severely disabling conditions into integrated settings does not ensure that integration will take place" (p. 168). In this study, sixteen students with profound intellectual disabilities attended regular classrooms in public high schools. Importantly, no attempt was made to plan or prepare for this movement to a mainstreamed school. Results showed the amount of contact during free time activities (recess, lunch time) between these 16 students and students without disabilities was very low. As Hilton and Liberty (1992) conclude, the lack of planning for this integration ended in the failure of integration for these students.

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[1] The term "other children" will be used to refer to children without disabilities.

It is not enough just to move students into the mainstream. The move has to be beneficial for the students with disabilities in terms of acceptance, interaction and friendships. Failure to plan for this integration, or alternatively just physically placing the students in a regular class without support, resulted in the failure of mainstreaming in the Hilton and Liberty (1992) study, in that the students with disabilities did not have a lot of contact with the other students. They were not included by these students. However, Hilton and Liberty's research may have resulted this way because they chose to mainstream students with severe disabilities when others have suggested that mainstreaming is only appropriate for children with mild and moderate disabilities (Schifani et al, 1980).

Instructional integration is the second component of mainstreaming. It is important that the child who is maintreamed receives adequate and appropriate instruction from the teacher. This is normally associated with the development of Individual Education Plans (IEP) for each student.

Social integration refers to the relationship between the child who is mainstreamed and their peer group. Social integration (for the purpose of this research) is the important component of mainstreaming. A child is included rather than just physically placed in the classroom when social integration is at a maximum. That is, positive social interactions are occurring at all appropriate times between children with and without disabilities.

(1) Mainstreaming in New Zealand

On January 1st 1990 the Education Act (1989) brought into law the right of every person in New Zealand to free enrolment at any state school. This meant that children with intellectual disabilities now had the legal right to attend regular schools. Prior to 1990 the New Zealand

education system could be described as a twofold system, consisting of separate schools or separate classes on regular school grounds for children with intellectual disabilities and regular schools for other children. Now, increasing numbers of students with intellectual disabilities are integrated into ordinary classes. The New Zealand education system is no longer twofold but one education system for all, regardless of disability.

Currently in New Zealand 20 000 students receive some form of special education assistance. These children make up 3% of the total school population. It is not possible to state accurately how many children with intellectual disabilities are mainstreamed in New Zealand.

(2) The Rationale for Mainstreaming

> The rationale for supported education is based largely on increasing social participation, acceptance, and friendships between students with severe disabilities and nondisabled students (Haring and Breen, 1989, p. 255).

Haring and Breen's statement of the rationale for mainstreaming will be understood to incorporate students with mild and moderate intellectual disabilities as well.

Mainstreaming has two fundamental objectives. First to improve academic performance of children with intellectual disabilities by having them exposed to the same school lessons as other children. Second mainstreaming opens up the opportunity for social interactions to take place, friendships to develop and acceptance between students with and without disabilities. "Social acceptance is the most valued element in the hierarchy of social integration because it more directly fulfils one of the child's most basic needs - the need for approval" (Kaufman et al, 1975).

The second goal of mainstreaming is important. The success of a mainstreaming program is reliant on whether or not the students without intellectual disabilities in the class accept, understand and interact with the child who is mainstreamed. Without this acceptance Kaufman et al's (1975) definition of mainstreaming and in particular the social integration component of their definition is not upheld.

As Demchak and Drinkwater (1992) explain, mainstreaming "is based on positive educational and social outcomes for (pre)schoolers with and without disabilities" (p. 72). The emphasis in this research will be on the positive social outcomes that could possibly arise for children with intellectual disabilities from being enrolled in a regular class at primary school. In the same classroom the purpose of mainstreaming for the other children is to gain understanding, awareness and acceptance of children who are different from themselves. Given this focus, this study will not be concerned with the first aim of mainstreaming - the improvement of academic performance in a mainstream situation.

II. PEER ACCEPTANCE OF CHILDREN WITH INTELLECTUAL DISABILITIES

> This investigator shares the concern expressed in the professional literature that many mainstreamed children are being socially rejected or isolated by their nonhandicapped peers in the regular classroom (Fox, 1989, p. 50).

Children with intellectual disabilities, are consistently rated low on friendship, acceptance and social acceptability by their peers. For example, Bender, Wyne, Stuck and Bailey (1984) showed that normal achieving students were more socially accepted by their peers than learning disabled, low achieving and students with intellectual disabilities. The authors suggested the reason for these children being less socially accepted was, they were taken out of class for additional instruction, had poor basic skills and were of lower socioeconomic status.

(1) Why aren't Children with Intellectual Disabilities Well Accepted?

People tend to group together when they have similar interests and values. By taking a look at one's own group of friends, one sees that similar morals, attitudes, religious beliefs and intelligence levels will be held in common. We seek out people who seem to be similar to ourselves.

Therefore, people with disabilities are not similar enough to people without disabilities for them to be friends. "As people usually like and seek out similar others, one would expect able-bodied students to avoid or limit their contact with disabled classmates" (Fichten, Robillard and Sabourin, 1994, p. 240).

Fichten et al propose a model, the Attentional Mechanisms Model of Interaction Strain, to explain why people without a disability have acceptance difficulties of people with disabilities. The authors suggest interaction difficulties with people who are disabled are due to nondisabled people paying special attention to the "disability" rather than other aspects of the person. In so doing the extra attention paid to the "disability" results in other people concluding people with disabilities differ more from themselves than they really do. The model also explains anticipated interactions with a person who is disabled can produce anxiety. "When an interaction task is difficult, preoccupation with negative self-focused thoughts is expected to further detract from accurate perception of the other, resulting in mindless perception of the other person,..." (Fitchen et al, 1994, p. 243).

To overcome interaction problems it is necessary to help people adjust their attention away from the disability and concentrate on the person. It may be possible to make interactions with a person who is disabled less anxiety producing through understanding of disabilities so other people do not concentrate on this aspect of the person.

(2) Why is Acceptance Important?

Johnson (1980) states, "In the classroom the influences resulting from student-student relationships have more powerful affects on achievement, socialization and development than any other factor" (p. 125). He proposes acceptance by ones peers is important for a range of social and cognitive developments such as a psychologically healthy adulthood and becoming socially competent.

III. FACTORS INFLUENCING PEER'S ACCEPTANCE OF CHILDREN WITH DISABILITIES

The attitudes of students without disabilities towards students with intellectually disabilities could be influenced by their prior contact with people who are intellectually disabled, their gender, their teachers' attitudes and their parents' attitudes.

(1) Contact theory

Contact theory (Allport, 1954) rests on the notion that experience with a particular group of people will alter attitudes of people who are in contact with that group. This results because of increased knowledge gained while being in those peoples presence. "Contact is intended to change one group's perceptions concerning individuals of another group" (Roper, 1990, p. 243).

The relationship between contact with a group of people and acceptance of those people is not clear cut. Studies looking at contact theory have produced different results.

Some studies have found that contact with a person who has a disability has a positive effect on their attitudes. Beh-Pajooh (1991) found college students who had prior contact with students who were disabled stated more positive attitudes than those with no contact. Voeltz's (1989) study involving three schools with different levels of contact (none, low and high) with students who were disabled, resulted in the children at the school with high levels of contact scoring the most accepting scores on the author's acceptance scale.

McHale and Simeonsson (1980), however, found that after contact with children who had autism during free play for one week the other children's positive attitudes toward those children prior to the contact remained stable. Sandberg (1982) found no significant difference between the attitude scores of children attending schools where students with intellectual disabilities were integrated and non integrated schools. Therefore, no relationship was found between contact and attitude.

It can be concluded from these studies that research dealing with attitude towards groups of people and experience with such people is somewhat inconclusive.

(2) Gender

In the majority of studies female participants score significantly higher on acceptance scales referring to people with disabilities than males. This is clearly demonstrated by Cowardian (1986). She showed girls were significantly more accepting than boys in regards to their disabled peers.

(3) Teacher Attitude Toward Mainstreaming

> One factor which has emerged and is widely acknowledged to be of crucial importance vis-a-vis programme success, is the teacher's attitude towards mainstreaming (Tanner, Wilton and Glynn, 1991, p. 4).

In general teachers have a positive attitude towards mainstreaming depending on the level of support and resources they receive. Tanner et al (1991) reported that of teachers surveyed, attitudes toward mainstreaming were more positive than negative.

The attitude a teacher has regarding children with disabilities in her/his classroom can have a significant effect on the attitudes of the students s/he teaches. Klassen (1994) refers to this point. "Teachers serve as models of how to interact with disabled students and their behaviour reflects their attitudes" (p. 33). This was demonstrated by Forlin and Cole (1994). Children with mild intellectual disabilities were more accepted and more likely to be welcomed into a regular class by the other children if the teacher portrayed a positive attitude toward children with intellectual disabilities.

(4) Parent Attitude Toward Mainstreaming

Although little research has been undertaken regarding the influence parents' attitudes have on their children concerning children with disabilities (Hayes and Gunn, 1988), it seems reasonable to conclude that parents' attitudes will have a significant impact on their child's attitude. In the same way that a teacher acts as a model, showing how to respond to children who are intellectually disabled, parents also have this influence.

Another question in regards to parents' attitude toward mainsteaming is, do parents attitudes differ between schools that have a mainstreaming program and those that do not? Some research suggests that the attitudes of parents' whose children attend a school with a mainstreaming program were more negative than those with children at a school with no mainstreaming program (Hayes and Gunn, 1988). Other research, however, proposes the opposite. Parents of children involved in a mainstreaming program stated more approving attitudes toward integration than other parents (Miller, Strain, Boyd, Hunsicker, McKinley and Wu 1992).

Thus, whether parent's contact with a mainstreaming program produces positive or negative attitudes is difficult to establish.

IV. PREPARING CHILDREN WITHOUT INTELLECTUAL DISABILITIES

> Mere physical integration is insufficient to bring about the (benefits of mainstreaming); it is necessary to plan systematically for social integration (Demchak and Drinkwater, 1992, p. 73).

Demchak and Drinkwater suggest that providing a well-structured preparation programme for children without disabilities is essential to achieve the social integration goal of mainstreaming.

Passing on information about disabilities is one way the goal of mainstreaming can be achieved. Ultimately this information should be acquired before the integration of a child with a disability into the classroom (Gottlieb, 1980). If a student has correct knowledge about disabilities their attitude can be improved. Information dispels misconceptions. Children without disabilities become more accepting as they learn more about the abilities and similarities between them and children with disabilities (Lewis and Doorlag, 1991).

(1) Preparatory Studies

Several studies demonstrate the positive effects of showing a film about disabilities, followed by a discussion. These types of interventions can have a positive impact on the attitudes children have toward interacting with people who have a disability.

For example, Westervelt and McKinney (1980) showed a short film about mainstreamed children in wheelchairs interacting in the classroom and in sport with peers without disabilities, to a group of nine year old children without disabilities. The film focused on a boy in a wheelchair, stressing that his likes and hobbies were very similar to activities other children enjoyed. Post-test questionnaire scores revealed that the experimental group who had viewed the film were more positive toward photographs of children in wheelchairs than the control group. However, nine days after the film these results were not apparent.

An idea similar to Westervelt and McKinney's, but using "disabled" puppets instead of a film, has been used by parents of children who are mainstreamed (Binkard, 1985). This disability awareness program was used to build favourable attitudes about children with disabilities. Puppets represented children with various disabilities such as intellectual or cerebral palsy. A nondisabled puppet asked questions to relay information about disabilities, with particular emphasis on the puppets who were disabled enjoying sports and family activities. Immediately after the awareness program the children who viewed it expressed very positive and substantial attitude changes towards people with disabilities. The teachers in these classrooms reported the program would make it easier to deal with social effects and the children's feelings when a child was to be integrated into their classroom in the future. The immediate positive effects shown in the children's attitudes continued after the program according to the teachers' reports.

The Northside District Program (Riester and Bessette, 1986) designed an extensive disability awareness program encompassing a variety of disabilities and using an array of media, materials and activities. For example, to simulate hearing impairment Chinese whispers was played and the children were encouraged to share their feelings of anger or frustration at not being able to perform optimally in this and other simulation games. Films of people who were deaf, blind or physically

disabled, interacting with peers were shown, and the lives of famous people with disabilities, for example Helen Keller were researched. The specific goal of this program was to prepare the students without disabilities for the integration of a student with a disability into their classroom, the desired result being an increase in the positive interactions among the students. Evaluation of this program revealed that the students did gain an increased understanding of what it may be like to have a disability.

Gottlieb (1980) showed a film about a boy with intellectual disability to a group of students and initiated a discussion about the boy. Did he have any friends, how did he get along with his classmates? The children who had viewed the film reported significantly greater positive attitudinal changes compared to controls immediately after the film, but there was no further follow-up.

The above four mentioned studies all have in common the showing of a film, discussion or activities resulting in students reporting an initial reported increased understanding and acceptance of disabilities and people who are disabled. However, those that re-evaluated in followup did not find this positive effect being maintained (in the Westervelt and McKinney study maintenance effects were only reported by the teachers). As Westervelt and McKinney conclude, "Its (the film) effect does not appear to be permanent" (p 295).

Importantly, the other goal of the mainstreaming, to increase the positive interactions between students with and without disabilities, besides an increased understanding of disabilities as shown on attitude surveys, is not able to be tested in these studies because there is no contact between these students. Positive discussion and attitude scores are easy to report but actions, the actual interaction with a person who is disabled, is a concrete measure of the effectiveness of such programs.

Buddoff and Siperstein (1978) pointed out, one cannot presume that children will act on their stated behavioural intentions and actually interact positively with their peers who are disabled. Therefore, there is a need to review the outcomes of studies that involve both a preparatory lesson and children without intellectual disabilities using what they have learnt through interacting with peers with a disability.

(2) Preparatory Studies that Include Interactive Data

The following two studies did this. They initiated a program of disability awareness and followed it by assessing the level of interactions between students with and without disabilities.

Fritz (1990) evaluated the ability of a one-off friendship awareness program to increase positive interactions between students with and without a disability. The study involved four students with a moderate intellectual disability who were integrated into mainstream classrooms for part of the school day. Before the friendship program, baseline levels of social interactions were measured using a 20 second observe/20 second record format for times when pupils from the subjects mainstreamed classes were present. The friendship program involved discussion of what a friend is, the listing of close friends, family members, acquaintances, discussion of whether any of the four subjects had been included in the friendship lists and ways or activities the children could participate with the subjects who were intellectually disabled. Post-intervention interaction levels were recorded.

Results showed that "the one-time friendship awareness activity alone was inadequate to produce changes in social interactions between students with and without disabilities" (p. 352). One subject had no interactions with other peers either in baseline or after the program and the subjects were not engaged in any interactions for the majority of the

time. In fact two subjects had a decrease in the number of interactions with peers after the friendship program. The interactions that did occur were short-lived - a maximum of 60 seconds (3 intervals) only.

Perhaps the best example of a study where students are prepared for the integration of a student with a disability is Raab, Nordquist and Cunningham (1986). A day care centre at a university was chosen because a child with autism was about to be integrated into a regular class. Two weeks prior to her mainstreaming the experimental group of children participated in a lesson about disabilities. Specifically, learning about similarities and differences between people, and simulation games for disabilities such as visual and hearing impairment, cerebral palsy, intellectual disability and autism, followed by a discussion of feelings. Lastly, a video of the child with autism was shown and her mother answered the children's questions. The control group had teacher contact for the same length of time as the experimental group to control for attention effects.

After the child had been integrated the researchers measured the level of peer regard among experimental and control children. That is, the actions towards and the comments about the child with autism were recorded by the teacher. Results showed that the group who participated in the pre-enrolment lesson regarded the child with autism more favourably than the control group. Also, the experimental group indicated more often than the control group that they would want to play with her. Unfortunately no followup to these results was undertaken. Importantly, the actions of the children in the experimental group were recorded. The ability of the pre-enrolment program to promote positive interactions between experimental children and the child with autism was clearly shown through the increased prosocial behaviours of experimental children compared to controls.

This study shows the importance of a lesson to prepare children for the integration of a child with a disability. Fritz's study did not result in positive interactions for the subjects who were integrated. This could have been to do with the lesson not being long or detailed enough with respect to discussion about disabilities. Raab et al however, showed clearly the positive effects a pre-enrolment program about disabilities can have on the schooling experience for all students in a pre-school.

V. CONCLUSIONS

> Although the practice of mainsteaming allows for increased social contact between nonhandicapped and handicapped children, this contact by itself may not be enough to ensure the social acceptance of handicapped children (Fox, 1989, p. 50).

The aim of mainstreaming is to have children with and without disabilities interacting in a positive way. However, this does not occur naturally because children with disabilities are perceived as different by their peers. Other issues such as gender, level of contact with people who are disabled and teacher and parent attitude effect children's acceptance levels. The research shows preparation of children for integration and introduction to disabilities aids in the achievement of the aim of mainstreaming - social integration. Therefore it seems sensible to instruct children about disabilities before the integration of a child with a disability to their class.

Taking into consideration previous research in this area this study looked at the acceptance of children with disabilities, especially intellectual disabilities, by Year 5 and 6 pupils in two New Zealand primary schools by measuring acceptance and collecting social interaction data. A two month followup was included to determine if the

results persisted. This methodological design improved on the designs of the preparation studies discussed above as it covered maintenance effects, social interaction data and used participants of an age where peers with intellectual disabilities are possibly perceived as different and excluded compared to participants at a preschool.

It was hypothesised that:

- the class with the mainstreaming program would have higher acceptance scores than the class without a program.

- females would be more accepting than males.

- teacher and parent attitude scores would relate to their student's/child's attitude scores.

- a lesson about intellectual disabilities would increase the acceptance scores of the participants in both classes.

- the positive interactions between the child with an intellectual disability and other children in the class with the mainstreaming program would increase after a lesson on disabilities.

- the class with the mainstreaming program would increase more than the comparison class on acceptance scores after a lesson on disabilities due to the educating influence of the child with an intellectual disability in this class.

- a two month follow-up would reveal that the increased acceptance scores and positive interactions after the lesson were maintained.

CHAPTER 2

METHOD

I. SETTINGS

Two Christchurch state primary schools were involved in this research. The first, the experimental school, had 12 classrooms and was situated in an older, northern part of the city in a district with mid to high socio economic status. The selected class, containing 30 pupils, was taught by a female teacher with 3 years teaching experience. 1995 was her first year teaching a child who was mainstreamed, although this teacher had had experience with people who had special needs in her family and in teacher training.

The second school, the comparison school, situated in the southern area of the city, had 14 classrooms. This newer area of Christchurch would be considered a mid socio economic area. The 29 pupils in the selected class were taught by a male teacher who had 22 years teaching experience. This teacher had experience with children who were mainstreamed, specifically, students with Down Syndrome, visual impairment, physical impairment and behavioural disturbance.

II. PARTICIPANTS

As indicated, two classes of children from the above two Christchurch primary schools participated in this study. One, the comparison class (n=29), was comprised of year 6 pupils who attended a primary school where no children with an intellectual disability were enrolled. Therefore, only if they had previously gone to another school with children who had an intellectual disability would they have experience with these children.

The other class, the experimental class (n=30), were directly involved with mainstreaming at their school. An eleven year old boy with Down Syndrome was part of their class. He had been mainstreamed for all of his school life and had received teacher aide support.[2] This class was year 5 and 6 level.

The comparison class contained 13 females and 16 males, their ages in ranging from 9 years, 9 months to 11 years, 3 months. The experimental class contained 18 females and 12 males, their ages ranging from 9 years to 11 years, 3 months.

The teacher of each class and the parent(s) or guardian(s) of all the pupils also participated through the completion of a survey.

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[2] A detailed description of John (not his real name) is given in Appendix I.

III. MATERIALS

(1) Acceptance Scale (see Appendix IV)

This 21 item scale developed by Voeltz (1989) assess the respondents' willingness for children with disabilities to be in their class at school and their previous involvement or friendships with children who have disabilities. It also establishes their eagerness to be friends with a child who has a disability and their acceptance of children that would be considered less socially desirable. Voeltz states that the reliability and validity of the scale is respectable for the measurement of attitude. This was shown in the fact that children who had been special friends to children with disabilities scored higher on the scale than those children who had not volunteered. The mean and standard deviation over all the children in Voeltz's study was 22.3 and 7.4.

The questions could be answered "Yes", "No" or "Maybe". Those questions which had a negative word such as "can't" or "don't" had response options of "Agree", "Disagree" or "Maybe" to reduce ambiguity. This, and the changing of the wording "mental retardation" to "intellectual disability" were alterations to the original scale.

The questions were scored with a zero for a nonaccepting response, one for a "Maybe" answer and two for an accepting response. The scale, therefore had a potential scoring range of 0 - 42, a low score reflecting a low acceptance of children with disabilities and a high score an accepting attitude.

(2) The Attitude Towards Mainstreaming Scale: (ATMS)
(See Appendix VI)

This scale developed by Berryman, Neal and Robinson (1980) was used to address the attitude of the teachers' in the two classes toward having children with a range of disabilities in their classroom. The authors suggest that their scale is appropriate for the study of attitude in regard to disabilities, experience of mainstreaming and the predicted benefits the other children will receive through having a child with a disability in their class.

The original scale consisted of 18 questions regarding a teacher's opinion of mainstreaming children with different disabilties. Question 5 was added for this study to pay particular attention to the matter of mainstreaming children with a moderate to severe degree of intellectual disability.

A Likert-type scale was used to score the teachers' responses. A maximum score of 114 or a minimum of 19 were the possible ranges. A score of 19 reflected a maximally positive attitude toward mainstreaming. Green and Harvey (1983) validated the scale for use with a New Zealand population of teachers and teachers in training. On the original 18-statement scale the teachers scored a mean of 48 and a standard deviation of 13.58.

(3) The Parental Attitudes Toward Mainstreaming Scale (PATMS)
(See Appendix VII)

This 32 item scale was designed by Green and Stoneman (1989). They suggest the scale is useful for measuring people's attitudes and beliefs about mainsteaming, their views of how mainstreaming will effect classroom management and positive and negative effects on children

without disabilities through being involved in a mainstreaming program. The impact on the child with a disability and the respondents' opinion of order problems that may arise when children with disabilities are mainstreamed are also measured by this scale. Green and Stoneman calculated internal consistency for the PATMS as 0.96.

The parents could answer on a 6-point Likert-type scale with a possible range of scores from 32 - 192, a high score reflecting a positive attitude toward mainstreaming. The original statements were altered to refer to primary schools rather than preschools. Green and Stoneman reported a mean of 109.44 and a standard deviation of 15.2 in their 1989 study of attitudes of mothers and fathers of children without disabilities.

(4) Behaviour Coding
(See Appendix IX).

The coding of interaction data was done in 15 second segments using Landesman-Dwyer's (1976) *Behaviour Coding Manual* as a guide. In total there were 40 minutes of baseline, intervention and followup coding (160, 15-sec segments). The categories were major behaviour, vocalizations, direction of interaction, number in the interaction group and others as objects of interaction. John's behaviour was the focus of the coding, i.e, his major behaviour and vocalizations, did he initiate or receive the interaction, the number of pupils around him, his affect and who was the recipient of his interaction (other pupils, staff or himself). These categories were scored by ranking the behaviours from the least to the best quality and quantity of positive interactions.

(5) Equipment

Video Camera: A National A-2 portable video camera was used to film the pupils at free time. As John moved around the classroom the camera operator was able to follow his movement.

Video Recorders: (In the classroom) A Hitachi video recorder was used to record behaviour in the experimental classroom.

(During coding) A front-loading National NV 730 video cassette recorder was utilised to play back and code the social interaction data.

Overhead Projector: The standard issue state primary school overhead projector that each class had access to was used to project the acceptance survey on to the wall.

III. PROCEDURE

All permission forms, survey forms, the lesson outline and a detailed statement of the proposed research was presented to the University of Canterbury Ethics Committee. Permission was granted to proceed with the research.

Permission for each child to participate in all sections of the research was obtained from all parent(s)/guardian(s) via a letter sent home (see Appendices II and III). Permission forms were signed by parent(s)/guardian(s) and returned to the child's teacher.

The acceptance scale was group administered three times to all the pupils in both classes, once before the disability awareness lesson, again two weeks after the lesson and finally two months later at followup. The

scales were distributed in numerical order from the class roll so no names appeared on the scale. Each pupil had an answer sheet on which they were asked to circle the response of their choice. Every question was read out aloud in a neutral tone and also appeared on an overhead transparency. A demonstration question was used before the administration of the first scale to illustrate how to answer the questions. (See Appendix IV)

In the experimental class only, for three days after the completion of each scale, the pupils were videotaped for twenty minutes a day during free time inside the classroom. Prior to this recording the pupils were taped twice during freetime to familiarise them with having a videocamera present. (This recording was not coded)

After baseline scales and videotaping, all pupils in both classes participated in a disability awareness lesson designed to give the subjects knowledge about various disabilities and especially intellectual disability. This lesson was designed by the researcher but instructed/lead by the respective teacher of each class. Details of the lesson are contained in Appendix V.

The teacher of each class completed their survey in their own time and returned it to the researcher. The parents' attitude surveys were numbered according to their child's number on the class roll and sent home via their child with a covering letter. Those parent(s)/guardian(s) who completed their survey returned it to the researcher via the class teacher.

CHAPTER 3

RESULTS

I. Acceptance Scale

The mean scores, standard deviations and range of scores on the acceptance scale are shown in Table 1.

Table 1: Mean scores, standard deviations and range of scores on the acceptance scale.

	n	B/LINE mean (std dev) range	INT/VENT mean (std dev) range	FOLL/UP mean (std dev) range
Expt Class	30	27.2 (6.5) 16 - 38	28.8 (6.1) 16 - 39	30.7 (6.3)) 15 - 40
Comp Class	29	29.2 (6.8) 18 - 40	29.8 (7.2) 11 - 41	28.6 (7.6) 10 - 41

A 2x3 ANOVA revealed no significant difference between the scores of the two classes on the acceptance scale.

Over time, acceptance scale scores did not change overall in any systematic way [$F (2, 112) = 2.62, p< 0.07$].

However, for the experimental class, acceptance scores did increase systematically from baseline to followup and the interaction between survey time and class was significant [$F(2, 112) = 5.12$, $p < 0.01$]. It can be seen clearly in Table 1 that the experimental class scores on the acceptance scale increased in a linear fashion over the three survey times. In the comparison class, changes over time were very small and unsystematic relative to the changes in the experimental class.

Further analysis of the experimental class performance on the acceptance scale revealed a significant increase over time on acceptance levels of children with disabilities [$F(2, 56) = 7.31$, $p < 0.0015$]. There was a systematic increase in acceptance scores from baseline to followup.

(1) Questions referring to Intellectual Disability only

The mean scores, standard deviations and range of scores for questions relating to children with an intellectual disability in the acceptance scale are shown in Table 2.

The experimental class mean scores on questions referring to intellectual disability increased from baseline to followup. The comparison class, however, started at approximately the same mean as the experimental class but decreased systematically over the time of the research.

Table 2: Mean scores, standard deviations and range of scores for questions referring to intellectual disability only.

	n	B/LINE mean (std dev) range	INT/VENT mean (std dev) range	FOLL/UP mean (std dev) range
Expt Class	30	11.57 (3.75) 4 - 18	13.07 (3.08) 6 - 18	13.6 (3.24) 6 - 18
Comp Class	29	11.66 (3.89) 5 - 18	11.00 (4.41) 1 - 18	10.8 (4.34) 0 - 18

A 2x3 ANOVA was used to determine if there was a significant difference between classes on the responses for questions regarding children with an intellectual disability. The ANOVA showed no significant difference between classes on the responses regarding questions referring to intellectual disability and no significant effect of time on these questions. However, because of the increase in mean scores on intellectual disability questions for the experimental class and a decrease for the comparison class a significant interaction effect occurred [$F(2, 112) = 7.78$, $p < 0.007$].

A separate 1x3 ANOVA of the experimental class responses to questions regarding children with an intellectual disability revealed significant increases in their acceptance over time [$F(2, 56) = 8.44$, $p < 0.0006$].

(2) Individual Data

Table 3: Table of number of pupils whose scores stayed consistent, increased and decreased on the acceptance scale from baseline to followup (determined by a 3 point or greater shift in score from baseline to followup on the acceptance scale). The experimental class has 29 pupils because one pupil left before followup.

	NOS OF PUPILS WHOSE SCORES STAYED THE SAME OVER TIME	NOS OF PUPILS RESPONSIVE TO INTERVENTION	NOS OF PUPILS RESISTIVE TO INTERVENTION
EXPT CLASS	10	16	3
COMP CLASS	11	7	11

Table 3 shows, in the comparison class there were 11 students whose acceptance scores were resistant to the disability awareness lesson compared to only 3 pupils in the experimental class. Moreover, twice the number of pupils in the experimental class were responsive to the disability awareness lesson than the comparison class.

In Table 3 it can be seen that the pupils in the experimental class were more responsive to the disability awareness lesson than the comparison class. Conversely, the comparison class contained more pupils whose acceptance scores over time were resistant to change. Both classes contained approximately the same number of pupils, for whom the disability awareness lesson had no impact on their acceptance scores.

A chi square revealed that the difference between classes on the number of pupils who scores stayed the same, increased over time or decreased was significant [$x^2 = 13.82$, $p < 0.001$].

(3) Gender

The mean scores, standard deviations and range of scores for females and males on the acceptance scale are shown in Table 4.

Table 4: Mean scores, standard deviations and range of scores for females and males on the acceptance scale.

	n	B/LINE mean (std dev) range	INT/VENT mean (std dev) range	FOLL/UP mean (std dev) range
FEMALES	31	30.5 (6.22) 18 - 40	31.6 (5.48) 21 - 41	31.9 (5.36) 22 - 41
MALES	28	25.6 (6.21) 16 - 38	26.8 (7.00) 11 - 40	27.04 (7.8) 10 - 40

Table 4 shows females' scores on the acceptance scale were higher than those of males from both classes at all stages of the research.

A 3x3 ANOVA revealed a significant gender effect, i.e, females scored significantly higher on the acceptance scale than males [$F(1, 54) = 10.39$, $p < 0.0021$].

II. Attitude Toward Mainstreaming

(1) Teachers

The teacher of the comparison class scored 42 on the ATMS and the teacher of the experimental class, 32.

A Chi Square revealed no significant difference between the teachers scores [$x^2 = 0.6334$, ns].

The teachers commented overall, that mainstreaming was a useful option, but qualified this by noting that adequate support, resources and training must be available for both teachers and students.

The teacher in the comparison class agreed with the statement, "students have the right to be in regular classes", again if enough support and resources were available. The other teacher also agreed with this statement, with the qualification that it is beneficial to their development and it remains safe for other children to be educated with that child.

The teacher of the experimental class agreed with the statements concerning students with the range of disabilities referred to in the ATMS and question 5 regarding children with a moderate to severe intellectual disability being in regular classrooms. Her agreement was qualified with the comment "Only with appropriate training and support and resources. Children's emotional, social and physical needs need to be met as well as their intellectual."

The comparison class teacher's responses agreed with those of the other teacher. His agreement with having children with disabilities in his class was dependent on appropriate support for the teacher and the students. He agreed less with the statement referring to having students

with moderate to severe intellectual disabilities and students with persistent behavioural disorders in regular classrooms. Also, this teacher commented that currently in his classroom students with epilepsy and speech difficulties were enrolled.

In response to the final statement, "Integration will be sufficiently successful to be retained as a required educational practice", both teachers agreed, but commented that smaller classrooms would be needed, and again, on the condition that support, training and resources were required. Also, the teacher in the comparison class added "the school be staffed and resourced to cope with each mainstreamed child".

(2) Parents

Between both classes, a total of 33 surveys were completed and returned, yielding an overall 56% response rate. The experimental class parents' mean score and standard deviation on the attitude survey was 134 (8.49) with a range of scores from 111 - 182. The comparison class parents' mean score and standard deviation was 132 (1.41) with a range of from 106 - 169. A t-test revealed no significance difference between parents' attitude toward mainstreaming in the experimental or comparison classes.

Some parents commented that class sizes should be at a level that allows the teacher to have more time with each child, also that the child with a disability needs appropriate levels of support in a mainstreaming situation. Another parent commented children without intellectual disabilities are expected to help the child with the disability more than they should.

II. SOCIAL INTERACTIONS

Table 5: Table of median, minimum and maximum rankings of social interaction data.

	MAJOR BEHAV-IOUR	VOCAL-IZATIONS	NOS IN GROUP	AFFECT	OTHERS INTER-ACTING WITH	DIRECTION OF INTERACTION
B/LINE:						
Median	9	1	2	3	1	0
Minimum	1	1	0	1	0	0
Maximum	12	4	6	5	2.5	3
INTERVENTION:						
Median	9	1	0	4	1	0
Minimum	5	1	0	1	0	0
Maximum	12	3	5	5	2	3
FOLLOWUP:						
Median	10	2.5	1	4	2	1
Minimum	3	1	0	2	0	0
Maximum	15	4	4	5	2	3

Table 5 clearly shows the median ranking for five variables (except number in group) increasing over the time of the research.

Eighteen Wilcoxon matched pairs tests revealed that half the variables (major behaviour, number in group, and vocalizations) improved significantly in regard to the number of positive interactions occurring ($p < 0.05$) between baseline and intervention recordings. When observations were made a second time (intervention to followup), 5 variables (all except number in group) improved significantly ($p<0.01$). For the comparison between baseline and followup recordings all 6 variables showed a significant increase in positive social interactions ($p<0.05$).

Table 6. Length of time and number of positive and negative social interactions John was engaged in during free-time.

	TOTAL TIME IN MUTUAL EXCHANGE	INITIATED IN'ACTIONS THAT CONTINUE TO MUTUAL EXCHANGE	RECEIVED IN'ACTIONS THAT CONTINUE TO MUTUAL EXCHANGES	INITIATED IN'ACTIONS THAT ARE NOT RESP'ED TO
B/LINE	5.75mins	7 times	3 times	18 times
INTER-VENTION	13 mins	6 times	3 times	15 times
FOLLOW-UP	12 mins	13 times	6 times	11 times

[Number of 15 second intervals]

Table 6 shows that from baseline to intervention the time John was engaged in a mutual exchange with classmates doubled. This increase was maintained in followup. Also, the number of conversations John had with classmates, either initiated by him or by a classmate that resulted in a mutual conversation, was steady from baseline to intervention but at followup was twice the level it started at. Correspondingly, the amount of times John initiated a conversation but was not answered decreased over time.

III. RELATIONSHIP BETWEEN ACCEPTANCE SCORES AND SOCIAL INTERACTIONS

Table 7 shows that as the class acceptance scores increased so did their total time in mutual exchange with John. Also, the conversations that John initiated or received continued into mutual exchanges more often as the mean acceptance score for the class increased. Conversely, as the acceptance scores increased the number of times John initiated a conversation but was not answered decreased. This is shown in Figure 1.

Table 7: Correlations between social interaction variables and mean acceptance scores for the experimental class.

	CORRELATION WITH MEAN ACCEPTANCE SCORES [3] (r)
TOTAL TIME IN MUTUAL EXCHANGE	0.64
INITIATED INTERACTIONS THAT CONTINUE TO A MUTUAL EXCHANGE	0.91
RECEIVED INTERACTIONS THAT CONTINUE TO A MUTUAL EXCHANGE	0.96
INITIATED INTERACTIONS THAT ARE NOT RESPONDED TO	- 0.99

[3] These correlations are not significant due to having only three data points (baseline, intervention and followup).

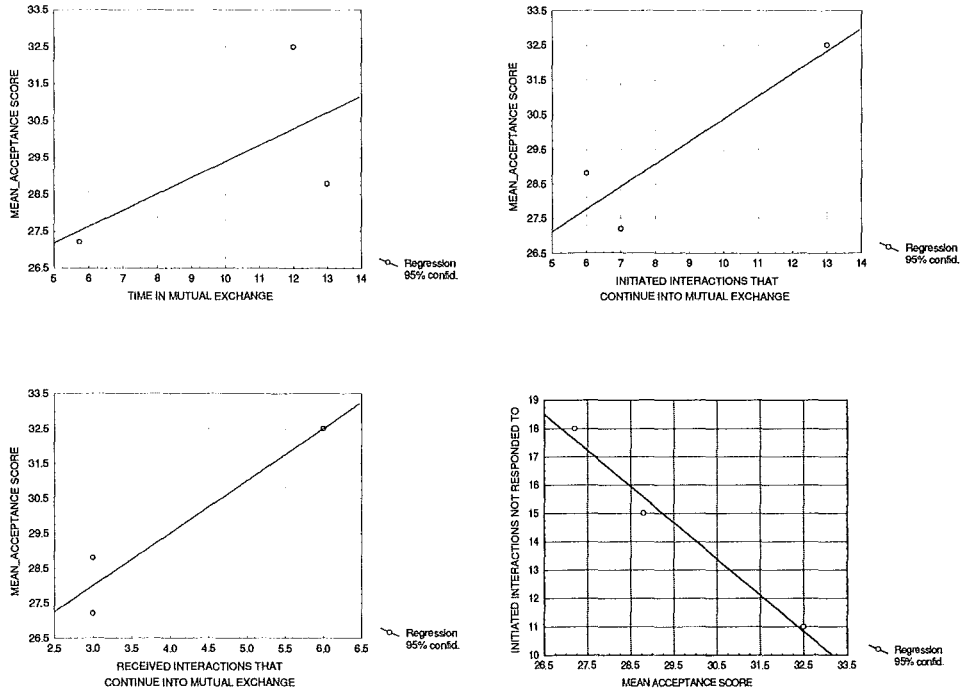

Figure 1: Scatterplots of mean acceptance scores and social interaction variables.

CHAPTER 4

DISCUSSION

The recent trend for the education of children with disabilities is to integrate them into regular classrooms. However, their successful integration into the mainstream is dependent in part on acceptance by their peers. One of the aims of mainstreaming is to promote positive interactions between children with and without disabilities and to make school enjoyable for the child who is mainstreamed. By having other pupils primed with correct knowledge about disabilities this aim has a greater chance of being achieved.

The literature (Raab et al, 1986 for example) shows that correct preparation of the students for the addition of a pupil with an intellectual disability into their classroom can increase positive interactions and acceptance of the mainstreamed child. These studies using preparation of the other children, as opposed to preparing the teacher or the child with the disability for integration, places the responsibility for acceptance and interactions in the hands of the these children. This is important in the long term because these children will be teachers, doctors, and politicians in the future and will continue to play important roles with respect to their fellow disabled citizens. It is necessary for them to be educated concerning children with disabilities so they will interact with, accept and include these people now and in the future.

Much research refers to the importance of teacher preparation for mainstreaming (for example Lewis and Doorlag, 1991). This book was specifically designed to prepare the educator to teach children with

disabilities in her/his classroom. Riester and Bessette (1986) suggest a "plethora of media and materials" (page 12) was produced to help teacher's organize for mainstreaming in their classrooms. Although this is important, it was deemed here to be equally important to direct preparation efforts toward the people who are the closest to children with intellectual disabilities i.e, the other children.

For this reason this study placed the responsibility for successful integration in the hands of the children without intellectual disabilities. The contention here is that other children can improve the mainstreaming experience for children with disabilities by positively interacting with them, but if they do not have the appropriate information about the child with the disability they possibly will not interact with her/him because they perceive that child as different. The Attentional Mechanisms Model of Interaction Strain (Fichten et al, 1994) proposes that to make interactions with people who are disabled easier for other people understanding of disabilities is needed. Understanding will divert attention away from the "disability" and make interactions with a person who is disabled a less anxious situation. Therefore, information about disabilities was given to the other children in the form of a disability package.

I. Acceptance Scale

Overall, the experimental class was more accepting of children with disabilities and especially children with intellectual disabilities than the comparison class. This was shown in their scores on the acceptance scale, questions referring to intellectual disability and in the manner individual participants' acceptance scores changed over the period of the research. The hypothesis that a lesson about intellectual disabilities

would increase the acceptance scores of other children was confirmed in the experimental class only.

Scores on the acceptance scale for the experimental class increased significantly over time. The comparison class scores, however did not change over the period of the research. Their scores fluctuated around their baseline score and at followup the class score was lower than at baseline. The difference between the experimental and comparison class in terms of acceptance scores shows the importance of having contact with a child who has an intellectual disability to put the lesson into action. The experimental class scores increased more than the comparison class after a lesson on disabilities due to the educating influence of John. A comparison between the means and standard deviations on the acceptance scale in this study and those gained by Voeltz (1989) showed all students were moderately high acceptors of children with disabilities. The students in the experimental class were highly accepting of children with disabilities at followup (more than one standard deviation above Voeltz's mean).

As the disability awareness lesson concentrated on intellectual disability it was not surprising the experimental class scores on just questions referring to intellectual disability increased from baseline to intervention while the comparison class scores decreased. The children in the experimental class were more accepting of people with intellectual disabilities, possibly due to the contact they have at school with John.

The data regarding individual responses on the acceptance scale showed that more individuals in the experimental class were receptive to the disability awareness lesson. There were a nearly four times as many children in the comparison class whose acceptance level decreased over the period of the research than in the experimental class and more than twice the number of children in the experimental class whose scores increased than in the comparison class.

Voeltz (1989) found that the school with a high contact level was more accepting of people with disabilities. This was also found in this study. Direct experience with a child who is intellectually disabled did improve acceptance compared to no contact. This confirms the first hypothesis stated in the introduction that "the class with the mainstreaming program would have higher acceptance scores than the class without a program".

Females were more accepting of children with disabilities as measured by the acceptance scale than males. Notably, this result was also found by Voeltz (1989) using the same acceptance scale.

II. Attitude Toward Maintreaming

The teachers and parents of each class did not differ significantly on their attitude toward mainstreaming. Therefore, between class differences in acceptance scores cannot be explained by differences in teacher or parent attitudes.

Taking into account that this study added one question to the ATMS and this would effect the teacher's scores compared to other research using the same scale, a comparison between the mean and standard deviation of the teacher's scores found here and that reported by Green and Harvey (1983) was made. The experimental class teacher scored more than one standard deviation less than the mean of Green and Harvey's study, suggesting a very positive attitude toward mainstreaming. The teacher in the comparison class scored half a standard deviation less than Green and Harvey's mean reflecting a moderately high attitude toward mainstreaming.

The teacher's comments agreed with the literature that mainstreaming is a definite option for children with disabilities providing appropriate levels of support and resources are available for staff and pupils.

Parents in both classes scored more than one standard deviation above the mean score from Green and Stoneman's (1989) study. This suggests very positive attitudes toward having children with disabilities in their children's class.

III. Social Interactions

The hypothesis, "positive interactions between the child with an intellectual disability and the other children at the experimental school would increase after a lesson on disabilities" was confirmed by the results of this research.

After the disability awareness lesson John was clearly having a more positive schooling experience. John's affect was more positive, he was speaking more and his behaviour was more social and not so isolated. He was engaged in mutual conversation rather than initiating conversations and not being responded to and the other pupils became more involved in his interactions.

This positive schooling experience for John was also demonstrated in his exchanges with other pupils. John's initiated interactions were responded to more often at followup than at baseline. Also, the time he spent conversing with other pupils increased and the other students initiated conversations with him more often. It must be noted though, that

there was no control for the impact of the lesson on social interaction, as social interaction data was recorded in the comparison class only. It is not possible to say then, the disability awareness lesson caused the increase in positive social interactions but suggest it had an impact on the positive outcome.

Both the scores on the acceptance scale and the positive social interactions were maintained at their higher intervention level at followup in the experimental class. Therefore, the hypothesis, "A two month follow-up will reveal that the increased acceptance scores and positive interactions after the lesson are maintained" was confirmed in the experimental class.

IV. Relationship between Acceptance Scores and Social Interactions

The results here confirm the important hypotheses in this research, "that a lesson about intellectual disabilities would increase both the acceptance scores of other children in the experimental class and the positive interactions between the child with an intellectual disability and these children".

The other children said they would be more accepting of children with disabilities (reflected by their increasing acceptance scores) at intervention and followup and the increased positive social interactions from the experimental class supported their statements. Although the relationships between acceptance scores and social interaction data were not significant, nevertheless, a trend in a positive direction was evident.

V. CONCLUDING REMARKS

Research has indicated that children with intellectual disabilities are not being spontaneously accepted by their peers in the mainstream (Riester and Bessette, 1986, Raab et al, 1986) However, with adequate preparation (of the other children) for this move, the low acceptance of children with intellectual disabilities can be overcome.

From the results reported here it can be concluded that a preparatory lesson containing for example, information on disabilities, simulation games and discussion of what makes a good friend brings the goal of mainstreaming - social interaction - closer to being achieved. It has been clearly demonstrated in this research (granted that only one child with an intellectual disability participated) that preparing the regular children for the integration of a child with a disability into their class improves acceptance and positive interaction levels with this child once s/he is integrated.

(1) Policy Implications

Mainstreaming is a legal reality in New Zealand, but as Riester and Bessette (1986) point out the task of preparing students for mainstreaming is crucial to its success but for the most part is overlooked. This country is in its sixth year of mainstreaming but there is no formal education policy regarding the preparation of regular students. This was confirmed in May 1995 by the Ministry of Education. See Appendix XI.

Currently in New Zealand a curriculum that teachers can use as a preparatory lesson for students concerning disabilities is not available. It

is suggested by Archer and MacKenzie (1992) "That, as a component of the Health Syllabus, the peers of mainstreamed children be educated to facilitate an understanding of special needs children." (page 16) The Ministry of Education does have, according to their letter in Appendix XI, a "Draft Curriculum for Health and Physical Wellbeing" currently in consultation.

However, preparation of school children for the integration of a child with a disability into their classroom is largely neglected in New Zealand and yet, as established above, it is these children's responses to the child with the disability that determine the success or failure of mainstreaming.

> Only when understanding and knowledge replace ignorance and misconception will handicapped individuals truly be afforded an equal opportunity for success in the mainstream of education and life (Litton, Banbury and Harris, 1980, p.39).

The education of the children who are closest to the mainstreaming process seems logically, a major factor in its success. This study demonstrates the feasibility and potential of such a strategy.

SUGGESTIONS FOR FUTURE RESEARCH

If this research was to be replicated or improved, it would be necessary to correct the slight mismatch of socio economic status between schools. Also, it would be a good idea to ask the pupils in the comparison class if they had had prior experience in a mainstreamed program.

An additional idea that would make the relationship between acceptance scores and actual interactions more accurate is to code the behaviour of individual pupils, rather than as a class as a whole and match this to their acceptance score. This could perhaps be achieved by the observer knowing all the children's names. The teacher could code the video with the observer and tell her/him their names, or have the children wear name tags while recording.

This research contained only one participant with an intellectual disability. It could be considered a pilot study for future research in this area. Impending research in the area of preparing children for the integration of a child with an intellectual disability would benefit from having an increased number of experimental classes. It could be concluded if the disability awareness package was useful and able to be generalized to a greater degree if greater than one experimental class participated. Also, social interaction data would be controlled for with more than one experimental class.

Further research of this kind, but with the additional comments for improvements stated here acted upon, should take place before the integration of any children with disabilities. This would be the optimal way to increase acceptance and positive interactions for when the child who is disabled arrives.

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APPENDICES

I. FULL DESCRIPTION OF JOHN

John's speech lacked clarity and he received speech therapy. He often left out small words and had difficulty with some sounds especially blends. He was able to follow up to one simple instruction and was able to ask questions. John had also some problems with a hearing loss in one ear. He was able to write a few sentences about a topic (after discussion) and usually required guidance with sentence structure. He recorded ideas legibly, needing reminders about letters sitting on the line and leaving gaps between words. He was able to spell over 100 high frequency words and was able to use a dictionary to locate words independently. John enjoyed books - especially plays. He could read fluently and often had to be asked to slow down. He read at a 8 to 8.5 year level. John was able to use a numberline quickly to add and subtract single digit numbers. He was able to add to 100 on paper and had been working on reading three digit numbers. He could read analog and digital time and handled money confidently. John had been focusing on social skills. He had worked on how to join in groups and games effectively and how to accept winning and losing. John's interests include cubs, swimming, kayaking and ball games (where he had well developed skills).

II. PERMISSION FORM FOR NORMAL CHILDREN'S PARENT(S)/GUARDIAN(S)

20 July 1995

MAINSTREAMING STUDY

Your permission please.....

For my psychology masters thesis I am conducting research in the area of mainstreaming Intellectually Disabled children.

I am interested in children's attitudes and willingness to befriend an Intellectually Disabled child.

I therefore seek your permission for your child to:

1) complete a short survey regarding his/her attitude towards children with intellectual disabilities and his/her eagerness to befriend such a child,

2) be observed interacting with the child who is intellectually disabled in his/her classroom,

3) take part in an Intellectual Disability Awareness lesson.

Your son/daughter's involvement in this survey is entirely voluntary, and you may withdraw permission at any time.

No information will be publicly released which will identify any individual participant.

In order for me to proceed with this research, please sign the attached consent form and return it to your child's teacher urgently.

Thank you for your co-operation with this very important project.

Yours sincerely

Claire Worsfold
Postgraduate Research Student

MAINSTREAMING STUDY

I have read and understand the description of the above-named project. On this basis I agree to my child participating as a subject in the project, and I consent to publication of the results of the project with the understanding that anonymity will be preserved. I also understand that I may at any time withdraw my child from the project, including withdrawal of any information I have provided, without any adverse consequence for my child.

I give permission for my child to:

1) complete a short survey regarding his/her attitude towards children with intellectual disabilities and his/her eagerness to befriend such a child,

2) be observed interacting with the child who is intellectually disabled in his/her classroom,

3) take part in an Intellectual Disability Awareness lesson.

Signed ..... (Parent/Guardian)

Date .....

III. PERMISSION FORM FOR JOHN'S PARENTS

20 July 1995

MAINSTREAMING STUDY

Your permission please.....

For my psychology masters thesis I am conducting research in the area of mainstreaming Intellectually Disabled children.

I am interested in whether a lesson on intellectual disability awareness given to the other children in your child's class increases the positive interactions your child has at school and enhances his overall schooling experience.

I therefore seek your permission to:

1) observe the interactions your child has with his classmates before and after a lesson on intellectual disability awareness,

Your son's involvement in this survey is entirely voluntary, and you may withdraw permission at any time.

No information will be publicly released which will identify any individual participant.

In order for me to proceed with this research, please sign the attached consent form and return it to your child's teacher urgently.

Thank you for your co-operation with this very important project.

Yours sincerely

Claire Worsfold
Postgraduate Research Student

MAINSTREAMING STUDY

I have read and understand the description of the above-named project. On this basis I agree to my child participating as a subject in the project, and I consent to publication of the results of the project with the understanding that anonymity will be preserved. I also understand that I may at any time withdraw my child from the project, including withdrawal of any information I have provided, without any adverse consequence for my child.

I give permission for my child to:

1) be observed interacting with his classmates
   before and after a lesson on intellectual disability awareness,

Signed ..... (Parent/Guardian)

Date .....

IV. ACCEPTANCE SCALE

Instructions given before the completion of the acceptance scale.

"There are no right or wrong answers to this survey. It is not a test or exam. You will not be given a mark or grade on how well you do. Answer the questions according to your own opinion. Answer for yourself. Don't discuss the questions with your neighbour or copy her/his answers."

Demonstration question used for the first administration of the acceptance scale in each class (on the overhead projector).

Shortland Street is my favourite TV programme?

Yes Maybe No

"Put your hand up if your favourite TV program is Shortland Street and you love watching it. If your hand is up then you would draw a circle around "Yes". Demonstrate this.

"For those of you who like to watch Shortland Street but do not think it is you favourite program or are unsure if you really like it or not you would circle "Maybe". Demonstrate this.

"Hands up who does not like Shortland Street. All of you would circle the 'No' option". Demonstrate this.

Ask if there are any questions.

Acceptance Scale

SCHOOL:_____

NUMBER:_____

GENDER: BOY / GIRL

1) It's ok to call someone a sissy if they cry a lot for no reason.

YES MAYBE NO

2) I have made friends with a child who has an intellectual disability.

YES MAYBE NO

3) I get embarrassed when I talk to someone who is crosseyed.

YES MAYBE NO

4) I have helped some students in wheelchairs.

YES MAYBE NO

5) It doesn't makes sense to have deaf children in school with children who can hear.

AGREE MAYBE DISAGREE

6) I don't say hello to children who are intellectually disabled.

AGREE MAYBE DISAGREE

7) I wish I could play with some children who have an intellectual disability.

YES MAYBE NO

8) Children who talk to themselves a lot are scary.

YES MAYBE NO

9) I would like a child with special abilities to join my class on camp.

YES MAYBE NO

10) Children who have an intellectual disability should not be in my room at school.

AGREE MAYBE DISAGREE

11) I really don't like to sit next to someone at lunch who is a messy eater.

AGREE MAYBE DISAGREE

12) I think I could be good friends with a child with special needs.

YES MAYBE NO

13) I have talked to some children in wheelchairs.

YES MAYBE NO

14) If I had a brother or sister who had an intellectual disability I would not tell anyone.

AGREE MAYBE DISAGREE

15) If another child can't do something or does something wrong he/she can be expected to be called a dummy.

YES MAYBE NO

16) I wish I could make friends with a child who has an intellectual disability.

YES MAYBE NO

17) If there are too many kids in my room who have trouble with maths and reading, my teacher won't have time for me and my friends.

AGREE MAYBE DISAGREE

18) I have played in the playground with some children who have an intellectual disability.

YES MAYBE NO

19) If someone told me about a new TV show on Saturday morning about children with intellectual disabilities, I would watch it if I could.

YES MAYBE NO

20) I have talked to some children with an intellectual disability before.

YES MAYBE NO

21) Children who talk funny so I can't understand them very well shouldn't be in my group in school activities.

AGREE MAYBE DISAGREE

V. DISABILITY AWARENESS LESSON

LESSON 1: Disability Introduction

Aim: To be aware of how people are alike and how they are different.
To discover - We are each unique.
- Differences make us interesting.
- We are more alike than different.

ACTIVITY

"Guess Who I Am" - Have each pupil write down their, eye colour and hair colour, pet's name, favourite TV program. Put pieces of paper altogether, draw one out and pupils try to guess who in the class it is describing.

Discussion: What is different about us all? - hair and eye colour, finger prints.
What is the same about us all? - same age, school, TV program.
It is common to be different heights and have different eye colours.

Introduction of "DISABILITY"

Aim: To understand the different types of disabilities and realise that alot of people have disabilities that we may not know about.

What do the pupils think "disability" means?
What does it actually mean? - incapable of doing some things.

Discuss types of disabilities.

Visual

Hearing

Physical

Intellectual

Read out Chapter 1 of "Lets talk about Disabled People".

ACTIVITY

Make a list of people the pupils know with disabilities.

eg: Grandad may wear glasses.

What about the pupils themselves??

Video - "Nicky - One of My Best Friends.

15 minute video about a boy who is blind and has cerebral palsy and is successfully mainstreamed with alot of friends.

Nicky is blind and wears braces on his legs. This causes him to walk unusually.

Nicky attends a regular school, not a school for the blind.

His friends describe him as:

their friend

a regular human being

just like any other friend.

His friends say:

because he has a disability does not mean he can't be their friend.

because Nicky and his friends like each other is the reason they are friends.

everyone is different even if they do not have a disability.

Nicky should be treated like a regular person.

don't have pity on Nicky and help him too much.

The video deals with why Nicky has a teacher aide. She helps him go over his work in Braille.

Discussion of video: Is Nicky having fun at school? Yes! Why? Because he has alot of friends who accept him as he is.
What is Nicky good at that his friends aren't?
Why do you think Nicky is so good at beep ball and much better than his friends?

How should we treat people with disabilities?

Offer help if needed
Don't call them unkind names
Don't stare
Treat them as you treat your able-bodied friends
Don't feel sorry for them or treat them like babies
Speak to the person with the disability directly, not through a third person: demonstrate this with three volunteers. How does the "disabled" person feel about not being spoken to directly?
Don't ignore disabled people
Know they feel normal inside - They don't wake up every morning and say, "Gee that's right I am disabled."
Don't be overprotective of people who have a disability. They like to joke around too.

Discuss that disabilities are similarities and differences between people that are not so common (as compared to height differences etc)

LESSON 2: Intellectual Disability

Move focus of lesson to intellectual disability.

What is it?
People with intellectual disability learn more slowly than other people. They may have damage to their brain at birth or in early childhood. People with an intellectual disability have a less than average IQ. People with an intellectual disability take a longer time to learn to do things, they need more time to learn to do things and need repeated experiences to lay down a learning path.

ACTIVITY

Have each pupil write down the one quality he/she thinks is most important in a friend. Put in a box and draw out one by one. Read the quality out aloud and discuss whether an intellectually disabled child could have this quality - therefore making them eligible to be a friend.

Book "I Have Down's Syndrome"

Read out section in book about Helen going to school.

Games: The purpose of these games is to simulate the feelings of awkwardness and confusion that people with an intellectual disability sometimes feel.

Try writing name with the nondominant hand. Display the results.
Write a list of 10-15 directions and read them quickly to a friend to see if he/she can do them all in the correct order.

Leave enough time for discussion of how the pupils felt while playing these games.

Did you try to cheat to improve their performance?

Did you feel frustrated at not being able to perform to the best of your ability?

Did you feel embarrassed in front of the rest of the class because you weren't performing well?

Did you get angry and just give up?

Did you blame the game and say it is a stupid game anyway?

Did you pretend to understand and carry on playing the game in your own way?

Can you now understand how a person with an intellectual disability may feel?

VI. TEACHER ATTITUDE SURVEY (note: after every statement room was provided for the teacher to make comments).

SCHOOL.....

DATE.....

Please complete the following survey by placing a circle around the number that BEST describes your level of agreement with the statement.

1 = Strongly Agree

2 = Agree

3 = Agree Somewhat

4 = Disagree Somewhat

5 = Disagree

6 = Strongly Disagree

1) In general integration of disabled students is a desirable educational practice. 1 : 2 : 3 : 4 : 5 : 6

2) Students (all students) have the right to be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

3) It is feasible to teach students who are gifted, of normal ability, or intellectually disabled in the same class. 1 : 2 : 3 : 4 : 5 : 6

4) Students who have mild intellectual disabilities should be in regular classes. 1 : 2 : 3 : 4 : 5 : 6

5) Students who have moderate to severe intellectual disabilities should be in regular classes. 1 : 2 : 3 : 4 : 5 : 6

6) Students with visual impairments who can read standard printed material should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

7) Students who are blind and cannot read standard printed material should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

8) Students who are hearing impaired but not deaf should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

9) Students who are deaf should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

10) Students who are physically disabled and confined to wheelchairs should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

11) Students who are physically disabled but not confined to wheelchairs should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

12) Students with cerebral palsy who cannot control movement of limbs should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

13) Students who stutter should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

14) Students with speech which is difficult to understand should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

15) Students with epilepsy should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

16) Students with diabetes should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

17) Students with behaviour disorders who cannot readily control their own behaviour should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

18) Students with persistent discipline problems should be in regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

19) Integration will be sufficiently successful to be retained as a required educational practice. 1 : 2 : 3 : 4 : 5 : 6

VII. PARENT ATTITUDE SURVEY

25 September 1995

Dear Parent/Guardian

As you will be aware, your child has been participating in a Disability Awareness Program as part of my thesis at the University of Canterbury. It will be very useful for research purposes to have additional information regarding mainstreaming from you, the parent/guardians of these children.

Therefore, as an extension of my work I ask that you complete the attached survey and return it to your child's teacher as soon as possible.

The completion of this survey is entirely voluntary and your anonymity will be respected at all times.

All surveys that are completed and returned by Monday 2 October will go into the draw for a Lucky Dip Lotto Ticket!!

Thank you for your opinions.

Yours sincerely

Claire Worsfold
Postgraduate Research Student

Parent Attitude Survey

SCHOOL:_____

CHILD'S NUMBER:_____

DATE:_____

Please complete the following survey by placing a circle around the number that BEST describes your level of agreement with the statement.

1 = Strongly Agree

2 = Agree

3 = Agree Somewhat

4 = Disagree Somewhat

5 = Disagree

6 = Strongly Disagree

1) A child with a disability would hold my child back and slow down his/her learning. 1 : 2 : 3 : 4 : 5 : 6

2) As a parent of a primary school child, I am against the idea of primary school mainstreaming. 1 : 2 : 3 : 4 : 5 : 6

3) My child would better understand and accept differences in people as a result of his/her participation in a mainstreamed program. 1 : 2 : 3 : 4 : 5 : 6

4) Many children with disabilities are well behaved in a primary school setting. 1 : 2 : 3 : 4 : 5 : 6

5) Mainstreaming will foster understanding and acceptance of differences among children. 1 : 2 : 3 : 4 : 5 : 6

6) Mainstreaming gives children with disabilities a chance to be around children without disabilities so that they can learn from them. 1 : 2 : 3 : 4 : 5 : 6

7) It is difficult to maintain order in a primary school classroom that contains a child with a disability. 1 : 2 : 3 : 4 : 5 : 6

8) In an attempt to accommodate the learning abilities of a child with a disability, the instruction of the entire class would be held back. 1 : 2 : 3 : 4 : 5 : 6

9) The benefits of mainstreaming primary school children outweigh the disadvantages. 1 : 2 : 3 : 4 : 5 : 6

10) A child with a disability would present a number of behaviour problems when mainstreamed into my child's classroom. 1 : 2 : 3 : 4 : 5 : 6

11) Primary school children with disabilities should go to special programs where regular children do not attend. 1 : 2 : 3 : 4 : 5 : 6

12) Children with disabilities may do things that injure my child. 1 : 2 : 3 : 4 : 5 : 6

13) Mainstreaming is likely to have a negative effect on the emotional development of the child with special needs. 1 : 2 : 3 : 4 : 5 : 6

14) Children with special needs are likely to create confusion in a primary school classroom. 1 : 2 : 3 : 4 : 5 : 6

15) My child would continue to receive adequate teacher instruction in a mainstreamed program. 1 : 2 : 3 : 4 : 5 : 6

16) My child might be frightened by the strange behaviour of some children with disabilities. 1 : 2 : 3 : 4 : 5 : 6

17) My child's teacher would have to give too much attention to a child with a disability; as a result, my child would suffer. 1 : 2 : 3 : 4 : 5 : 6

18) I am not prepared to deal with my child's being involved in a mainstreamed program. 1 : 2 : 3 : 4 : 5 : 6

19) In a mainstreamed classroom, the child with special needs will not receive the special help and individualised instruction he/she needs. 1 : 2 : 3 : 4 : 5 : 6

20) Children without disabilities benefit when children with special needs are integrated into regular classrooms. 1 : 2 : 3 : 4 : 5 : 6

21) The behaviour exhibited by children with disabilities would set a bad example for my child. 1 : 2 : 3 : 4 : 5 : 6

22) My child might be overlooked in a mainstreamed classroom because children with disabilities are so demanding. 1 : 2 : 3 : 4 : 5 : 6

23) The instructional needs of a child with a disability may be overlooked by many primary school teachers. 1 : 2 : 3 : 4 : 5 : 6

24) Children without disabilities learn to develop sensitivity to others by having the opportunity to know children with disabilities. 1 : 2 : 3 : 4 : 5 : 6

25) Children with disabilities exhibit delays in academic skills which would be detrimental to the educational progress of the entire class. 1 : 2 : 3 : 4 : 5 : 6

26) My child may copy inappropriate behaviours exhibited by children with disabilities. 1 : 2 : 3 : 4 : 5 : 6

27) The one-to-one instruction required by a child with a disability would detract from the instructional attention which my child might receive. 1 : 2 : 3 : 4 : 5 : 6

28) It is important to me that my child participate in a mainstreamed program. 1 : 2 : 3 : 4 : 5 : 6

29) The contact my child may have with children who are mainstreamed may be harmful to him/her. 1 : 2 : 3 : 4 : 5 : 6

30) A child with a disability would be rejected or left out by the other children in my child's classroom. 1 : 2 : 3 : 4 : 5 : 6

31) The presence of a child with special needs in my child's classroom would impede my child's educational progress. 1 : 2 : 3 : 4 : 5 : 6

32) Mainstreaming helps children with disabilities become prepared to function in the "real world". 1 : 2 : 3 : 4 : 5 : 6

IX. BEHAVIOUR CODING GUIDELINES

1) *Major Behaviour*: Major Behaviours were scored from 1 to 14, increasing in value with more positive interactive behaviour. The behaviour that John engaged in for the largest part of the 15 second segments was coded for major behaviour.

1= Aggression: Verbal or physical abuse of another pupil.

2= Scold/Punish: Indicating that the behaviour of another pupil is not acceptable or liked by scolding or reprimanding.

3= Annoy/Obstruct/Upset: Deliberate behaviour that incites a negative reaction from another pupil such as elbowing or teasing.

4= Protesting to Teacher: Complaining to the teacher about another pupils behaviour.

5= Attentive Awake: Behaviour focused on an activity involving others, gazing around the room, e.g, watching a group of pupils.

6= Locomotion: Walking around the classroom either without purpose or engaged in an activity such as putting away games.

7= Grooming/Dressing: Attending to the physical appearance of body, e.g, tying shoelaces.

8= General Focused Activity: Attending to a play activity. e,g. building blocks alone.

9= Unfocused Activity: Behaviour where attention to a play activity is not fully focused i.e, looking at what other pupils are doing but still with blocks in hand. Note: this category is also isolated activity.

10= General Social with Objects: Attending to a play activity (8) but with other pupils involved. e.g, jointly making something. Note: different from 14 because the building of the object is the focus and not the socialising.

11= General Social with People: Interacting/Social behaviour with other pupils but with no specific focused activity.

12= Share Resources: Sharing or distributing resources in a fair way.

13= Affection/Console/Care: Direct contact with another pupil in a caring, affectionate manner.

14= Social Play: Directly involved in an activity with other pupils. e.g, participating in a board game.

2) Vocalizations

1= None

2= Talking to Self

3= Talking to Other

4= Laughing/Gleeful Sounds

3) Number in Group

The number of pupils sitting with John, either facing him or in the same circle/area as him - not with their backs to him.

4) Affect:

1= Hostile

2= Negative

3= Involved/Intense

4= Neutral

5= Positive

5) Others as Objects of Interaction:

0= Staff

1= None or Self

2= Pupils

6) Direction of Interaction:

0= Not Applicable/Not Interacting/Alone

1= Initiates

2= Receives

3= Mutual Exchange

X. RAW DATA

(1) Experimental Class

SUBJECT NOS	B/LINE SURVEY	INTVENT SURVEY	FOLL'UP SURVEY	GENDER (1=F,2=M)	TEACHER ATTITUDE	PARENT ATTITUDE
1	28	30	35	2	32	128
2	22	26	31	2	32	129
4	31	37	39	2	32	134
5	28	31	33	2	32	130
7	22	21	33	2	32	159
8	30	31	29	2	32	
9	21	22	19	2	32	143
10	22	30	29	2	32	115
11	38	37	36	2	32	135
12	20	21		2	32	
13	16	22	15	2	32	179
14	22	16	22	2	32	
15	29	36	38	1	32	
16	38	39	40	1	32	147
17	35	35	40	1	32	113
18	23	27	22	1	32	182
20	18	23	29	1	32	151
21	32	35	29	1	32	
22	29	32	30	1	32	154
23	38	35	34	1	32	
24	31	30	31	1	32	
25	34	35	35	1	32	
26	19	21	24	1	32	116
27	31	29	32	1	32	
28	20	24	30	1	32	
29	33	37	37	1	32	
30	20	26	36	1	32	138
31	29	27	29	1	32	111
32	32	24	23	1	32	140
33	24	26	30	1	32	

(2) Comparison Class

SUBJECT NOS	B/LINE SURVEY	INTVENT SURVEY	FOLL'UP SURVEY	GENDER (1=F,2=M)	TEACHER ATTITUDE	PARENT ATTITUDE
1	31	34	30	1	42	131
2	26	28	27	2	42	169
3	36	40	40	2	42	112
4	25	29	31	2	42	157
5	19	15	10	2	42	
6	31	29	29	1	42	139
7	18	22	23	2	42	
8	19	22	26	2	42	140
9	40	39	41	1	42	
10	23	30	33	2	42	
11	31	26	25	1	42	
13	21	28	25	2	42	120
14	32	39	36	1	42	
16	32	27	26	1	42	
17	40	33	36	1	42	
18	26	22	20	2	42	149
20	18	11	12	2	42	
21	40	35	29	1	42	128
22	32	27	28	2	42	
23	30	31	28	1	42	148
24	23	26	17	2	42	156
25	23	39	38	1	42	138
26	31	33	31	1	42	
27	38	41	41	1	42	106
28	38	38	29	2	42	
30	31	32	33	2	42	136
32	32	33	30	1	42	
33	33	30	31	2	42	133
34	28	25	24	2	42	

MINISTRY OF EDUCATION Te Tāhuhu o te Mātauranga
NATIONAL OPERATIONS

CEO 95/1057

5 May 1995

Claire Worsfold
Department of Psychology
University of Canterbury
Private Bag 4800
CHRISTCHURCH

Tena koe Claire Worsfold

Nga mihi nui ki a koe. Greetings.

The Secretary for Education, Dr Maris O'Rourke, has asked me to reply to your letter of 20 April 1995 concerning information for your research project.

The Ministry is developing a new Health and Physical Wellbeing curriculum. Disability is discussed in the context of this development.

The Draft Curriculum Statement for Health and Physical Wellbeing is due to be released in early 1996 for consultation. This section of the National Curriculum Framework is expected to be finalised in early 1997.

The Ministry does not currently issue curriculum guidelines to prepare students in regular classes for the introduction of students with intellectual disabilities to their classrooms.

Yours sincerely
Naku noa, na

Kathy Phillips
Senior Manager
National Operations

HE TAONGA TE REO
1995 A CELEBRATION OF MĀORI LANGUAGE

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